

Abstract

A lead-free solder alloy suitable for use in flow soldering of electronic components to printed wiring boards comprises 0.1 – 3 wt% of Cu, 0.001 – 0.1 wt% of P, optionally 0.001 – 0.1 wt% of Ge, and a balance of Sn. The solder alloy may further
5 contain at least one element of Ag and Sb in a total amount of at most 4 wt%, and/or at least one element of Ni, Co, Fe, Mn, Cr, and Mo in a total amount of at most 0.5 wt% in order to strengthen the alloy, and/or at least one element of Bi, In, and Zn in a total amount of at most 5 wt% in order to lower the melting point of the alloy.